

THE STATUS OF *PEROGNATHUS LONGIMEMBRIS* (COUES).

While identifying certain specimens in the Field Museum I have had occasion lately to refer to rather detailed memoranda made some years ago regarding a reexamination of the type specimen of *Perognathus longimembris*. This reexamination was induced by the acquisition of considerable material by the U. S. Biological Survey subsequent to the publication of a revision of the genus *Perognathus* in 1899 (North American Fauna No. 18). In this revision the immature and poorly preserved type was identified with the larger of the two species found in the vicinity of the type locality and previously known as *Perognathus inornatus*. A later and somewhat reluctant conclusion, not heretofore published, is that the type is an example not of the larger but of the smaller species, that is, the one currently known in a broad sense as *Perognathus panamintinus*. The case is one of considerable difficulty and final solution of all the points involved probably awaits careful field work fortified by previous study of all the specimens now in collections. In the hope that they may be of use to those having opportunity for such field work, therefore, these notes are published.

The type of *Otognosis longimembris*, now in the U. S. National Museum, is labeled as having been collected by John Xantus some fifty years ago at old Fort Tejon, Cañada de las Uvas, Kern County, California. This locality is situated in one of the passages leading through the Tejon or Tehachapi Mountains from the southern part of the San Joaquin Valley to the Mojave Desert. These mountains also connect the Sierras with the southern coast ranges. Hence, the site of Fort Tejon, long since abandoned as a military post, is within comparatively easy reach of several faunal districts. Recent collectors have failed to secure any pocket mice at the actual site of the old fort and it is, therefore, probable that the type did not come from there but from some of the surrounding country. There are two species inhabiting this surrounding country which as adults are easily distinguishable but which may be exceedingly similar when only partly mature. For convenience, these species may be referred to as the larger and the smaller, one having a range to the northward, principally in the San Joaquin Valley, and the other to the south and east, except as noted below.

Of the specimens which have been taken in the general Tejon region, the majority belong to the smaller species. In fact the larger species has been found in the region at but one locality, namely Rose Station, which is well within the San Joaquin Valley. Specimens from this locality are in the Biological Survey collection and in the Field Museum. This species has not been found farther south. On the other hand, specimens of the smaller species have been obtained at various places on all sides of the old fort. Thus there are examples of it in the Biological Survey collection from San Emigdio Canyon and Tejon Canyon and in the Field Museum from Lockwood Valley and Castac Lake, in all about a dozen specimens. Possibly still others are now in collections, but I am unable to bring them all together at present.

Geographical probabilities thus favor the supposition that the type was of the smaller species, but the matter is complicated by the discovery that certain specimens from the San Joaquin Valley are practically indistinguishable from the smaller species and suggest the possibility that both species occur throughout that region. These small specimens are found in relatively small numbers at localities where the large species has been taken in series. Out of nearly 200 specimens examined from the San Joaquin Valley only nine are small. These are as follows: Fresno 2; Lodi 3; Marysville Buttes 1; Oakdale 1; Three Rivers 2. Attempts to account for these small specimens on the basis of sexual or individual variation have not been thoroughly satisfactory. Moreover, it is practically impossible to distinguish them by cranial characters from specimens from the Tejon region. As compared with the larger species of the San Joaquin Valley (*inornatus*) they are characterized by smaller size, smaller mastoid bullae, narrower braincase, less mastoid width, slightly shorter nasals, less width across parieto-frontal suture, and always greater relative and usually greater actual width across the interorbital space. No single one of these characters is very pronounced but all are so constantly correlated that after careful study one finds it difficult to believe they are not of specific significance.

The type of *longimembris*, which was placed with the larger species on account of a rather narrow interorbital space, now seems clearly to belong to the smaller form. Its interorbital space, although actually narrow, is relatively about the same width as in other examples of the smaller species and it agrees with them in the other cranial characters above mentioned. The type is preserved in alcohol, the skull having been removed and cleaned in recent years. The skin is in poor condition and identification depends wholly upon the skull which is that of an immature animal. Among recent specimens, the one most closely resembling the type is an adult female collected in Tejon Canyon by Luther J. Goldman in July, 1903, and now in the Biological Survey collection. It has the crowns of the molars worn flat and, although much older than the type, agrees with it very closely.

It seems, therefore, that the name *Perognathus inornatus* should be revived for the larger species of the San Joaquin region, its one subspecies being *Perognathus inornatus neglectus*. The name *longimembris* should again be used for the small species of the Tejon region, *P. elibatus* and perhaps *P. brevinasus* being synonyms. Closely related subspecies are *P. l. panamintinus*, *P. l. bangsi*, and *P. l. arenicola*, while later study very probably will show that *P. nevadensis* and *P. pericalles* should be added to these.

—Wilfred H. Osgood.